

REMARKS

The Outstanding Office Action states that claims 16-32, 44-58, 73-80 and 99-108 are now pending in the application. Amendments have been made to Claims 16, 26, 44, 52, 99, 102, 104, and 107 to overcome the outstanding rejections. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

DRAWINGS

Applicants have submitted replacement drawings to make formal, non-substantive changes to the originally filed drawings. Applicants respectfully request that the replacement sheets of drawings be entered in the present application.

REJECTIONS UNDER 35 U.S.C. § 102

Claims 104, 106-108 stand rejected under 35 U.S.C. 102(b) as being anticipated by Ogden.

Ogden discloses a welding gun trigger control circuit. With the trigger incorporated in the trigger control circuit, the welding gun is permitted (1) to get a pre-welding purge gas flow without welding wire feed or welding current being supplied when the operator presses the trigger, (2) to continue the shielding gas flow and start the welding wire feed and supply welding current when the operator releases the trigger, (3) to stop welding wire feed and the welding wire current when the operator presses the trigger again, and (4) to shut off the supply of welding gas when the operator releases the trigger. The trigger of the welding gun disclosed in Ogden can be operated in only two positions, i.e., a depressed position and a released position. The four

AMENDMENTS TO THE DRAWINGS

The attached "Replacement Sheets" of drawings include changes to Figures 1-10. The attached "Replacement Sheets" which include Figures 1-10, replace the original sheets including Figures 1-10.

Attachment: Replacements Sheets

operating modes are **sequentially** achieved and controlled by the trigger control circuit when the trigger is repeatedly depressed and released. Many electrical components, such as timer, diodes, switch, triacs and etc., are used to accurately switch among the four operating modes **sequentially** in response to the pressing or releasing action. If the operator misses one operating mode or finishes the operating mode too early, the operator must shut off the torch and start the whole process all over again. Moreover, it is also difficult for an operator under harsh working conditions to remember in what mode the torch is operating, where the depressed position and the released positions each control two modes.

Claim 104 has been amended to define a trigger system with a selector operable in a plurality of operating positions that **mechanically operate** the plasma arc torch in a corresponding plurality of operating modes, wherein the plurality of operating positions are **independent of one another**. Claim 107 has also been amended to define an apparatus with a single element comprising a plurality of features that function to **mechanically operate** the plurality of operating modes.

Ogden cannot anticipate Claims 104 and 107 because Ogden does not provide a selector or a single element (Claim 107) operable in a plurality of operating positions that can mechanically operate a plasma arc torch or an apparatus in a plurality of operating modes. Mechanical operation of Claims 104 and 107 allows the operator to freely choose the desired operating modes without following a specific order, which is required in Ogden and without the need to preselect the operating modes at the power supply before operating the torch. Furthermore, Claim 104 also includes the limitation that the plurality of

operating positions are independent of one another. Accordingly, Applicants respectfully request that the rejections of Claims 104 and 107 be withdrawn.

Claim 106 is directed to a selector for use in a trigger system wherein the selector is adapted to enclose components disposed within the torch handle throughout a plurality of operating positions of the selector. Ogden cannot anticipate Claim 106 because Ogden does not expressly or inherently disclose a selector which can **enclose components disposed within the torch handle throughout a plurality of operating positions of the selector** as defined in Claim 106. Accordingly, Applicants respectfully request that the rejection of Claim 106 be withdrawn. Accordingly, Applicants respectfully request that this claim rejection be withdrawn.

Claim 108 is directed to a trigger system with an internal stop which engages a selector for operating in a plurality of modes, wherein the internal stop and selector define contoured adjacent faces to position the selector. Applicants respectfully submit that Ogden cannot anticipate Claim 108 because Ogden does not disclose **the use of contoured adjacent faces** to position the selector for operating in a plurality of modes. Accordingly, Applicants respectfully request that this claim rejection be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 16-20, 22-31, 44-48, 50-53, 55-58, 73-80 and 99-108 stand rejected under 35 U.S.C. §103 as being unpatentable over Blankenship or Brown in view of Ogden. Applicants respectfully request reconsideration of these rejections in light of the present amendments and the following remarks.

Blankenship discloses a plasma arc torch with an identification circuit. The identification circuit is used to ensure that a particular torch is operated under the proper settings, such as the power, gas flow and other desired operating parameters. The combinations of the parameters are preselected and performed at the power supply. The trigger in and of itself does not perform any parameter/mode selection function.

Brown discloses a welding apparatus with a trigger member movable between four predetermined positions. The four predetermined positions correspond to a shut off mode and three different combinations of welding parameters required for a particular welding program position. As the trigger member is moved through its different positions, the trigger member permits the various combinations of welding parameters to be switched in at chosen intervals.

Claims 16, 26, 44, 52, 99, 102, 104 and 107 have been amended to clarify that the selector comprising a first operating position and/or a second operating position and/or a neutral position or a plurality of operating positions, **mechanically operates** the apparatus in (1) a first mode to deliver the gas to the plasma arc torch, and/or (2) a second operating mode to deliver the gas and the electric power, and/or (3) a neutral mode to inhibit delivery of the gas and the electric power, **without preselecting the operating modes at a power supply.**

Applicants submit that Blankenship cannot render the apparatuses defined in Claims 16 and 26, the trigger systems defined in Claims 44, 52, 104 and 107 and the methods defined in Claims 99 and 102 obvious in view of Ogden. First of all, both Blankenship and Ogden use electric circuits to activate the operating modes. Blankenship uses an identification circuit to ensure the correct selection of the desired operating modes,

while Ogden uses a trigger control circuit to sequentially select the operating modes in response to a signal produced by the depressing or releasing actions of the trigger. Second, Ogden discloses only two positions wherein the depressed position corresponds to two modes and the released position corresponds to two modes. The positions of the trigger for the gas/electricity mode and for the shut-off mode are the same released position, and not construed as a plurality of positions. Third, since both Ogden and Blankenship exclusively use an electric circuit to control and ensure the correct operating modes, their combination cannot achieve an apparatus using a mechanical activation as claimed. Accordingly, Claims 16, 26, 44, 52, 99, 102 and 104 cannot be rendered obvious over Blankenship in view of Ogden and Applicants respectfully request that these claim rejections be withdrawn.

Moreover, Applicants submit that Brown cannot render the apparatuses defined in Claims 16 and 26, the trigger systems defined in Claims 44, 52, 104 and 107 and the methods defined in Claims 99 and 102 obvious in view of Ogden. First of all, as stated in the previous paragraph, while Ogden discloses the three operating modes, Ogden uses a trigger control circuit to **sequentially select** the operating modes in response to a signal produced by the depressing or releasing actions of the trigger and does not disclose a selector which mechanically operates the operating modes, as defined in the above-identified claims. Second, while Brown discloses a selector movable among a plurality of positions, the operating parameters for the operating modes must be preselected before an operator starts operating the torch. The operator cannot freely select an operating mode if that mode is not preselected at the power supply. Third, Brown does not disclose a gas-only mode which delivers only gas to the plasma arc torch. Fourth, none of Brown

and Ogden provides a motivation to combine the three modes disclosed in Ogden with Brown's selector. Accordingly, Applicants respectfully request that the rejections of amended Claims 16, 26, 44, 52, 99, 102 and 104 be withdrawn.

Claims 17-20 and 22-25, 27-31, 50, 51, 53, 55-58, 100, 101, and 103 each depend from Claims 16, 26, 44, 52, 99 and 102, respectively, and distinguish over Blankenship, Brown or Ogden for at least the reasons stated above in connection with Claims 16, 26, 44, 52, 99 and 102. Accordingly, Applicants respectfully request that the rejections of Claims 17-20 and 22-25, 27-31, 50, 51, 53-55, 58, 100, 101, and 103 be withdrawn.

Claim 73 is directed to a plasma arc torch comprising a gas control device disposed **within the torch handle** and directly activated by the selector when the selector is operable to the first operating position.

Blankenship or Brown cannot render Claim 73 obvious in view of Ogden because none of Blankenship, Brown and Ogden discloses a welding gun or a plasma arc torch with a gas control device disposed **within the torch handle**. Accordingly, Applicants respectfully request that rejection of Claim 73 be withdrawn.

Claims 74-80 each depend from Claim 73 and distinguish over Blankenship, Brown or Ogden for at least the reasons stated above in connection with Claim 73. Accordingly, Applicants respectfully request that rejections of Claims 74-80 be withdrawn.

Claim 105 is directed to a housing for use in a trigger system wherein the housing comprises a set of parallel guides to prevent rotation or misalignment of the trigger system during operation.

Applicants submit that Blankenship or Brown cannot render Claim 105 obvious in view of Ogden because these references use either a rotatable trigger or a trigger that travels up and down as it is depressed and released, teaching away from a set of parallel guides to prevent rotation or misalignment of the trigger system. None of Blankenship, Brown, or Ogden teach or suggest the use of parallel guides and thus Applicants respectfully request that the rejection of Claim 105 be withdrawn.

Claim 106 is directed to a selector for use in a trigger system on a torch handle wherein the selector is adapted to enclose components disposed within the torch handle throughout a plurality of operating positions of the selector. Applicants submit that Blankenship or Brown cannot render Claim 106 obvious in view of Ogden because none of these references teach or suggest a selector which can **enclose components disposed within the torch handle** as defined in Claim 106. Accordingly, Applicants respectfully request that the rejection of Claim 106 be withdrawn.

Claim 108 is directed to a trigger system wherein an internal stop and a selector define contoured adjacent faces that engage to position features of the selector for operating in a plurality of modes. Applicants submit that Blankenship or Brown cannot render Claim 108 in view of Ogden because none of these references discloses or suggests **the use of contoured adjacent faces** to position the selector for operating in a plurality of modes. Accordingly, Applicants respectfully request that the rejection of Claim 108 be withdrawn.

Claims 21, 31, 49 and 54 are also rejected under 35 U.S.C. §103 as being unpatentable over Brown in view of Dean. Claims 21, 31, 49 and 54 depend from independent Claims 16, 26, 44, and 52 and distinguish over these references for at

least the reasons stated above. Accordingly, Applicants respectfully request that these claim rejections be withdrawn.

CONCLUSION

It is believed that all of the stated grounds of objection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding objections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7524.

Respectfully submitted,

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